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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/760,775

01/17/2001

Naoki Saikusa

Q62732

4734

7590

10/14/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

NGUYEN, HANH N

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,775

Applicant(s)

SAIKUSA, NAOKI

Examiner

Hanh Nguyen

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 1/17/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20041008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1 and 7 are objected to because of the following informalities:

In claims 1 and 7, what is meant by “handling the band process” on line 12 and “band restriction” on line 14. Is the “handling band process” meant bandwidth allocation? Appropriate correction is required.

Claims 4 and 10 have similar problems. In addition, the means for discriminating restricted band traffic and non-restricted band traffic is disclosed in optical network unit in Fig.2.

In claim 3 and 9, what is meant by “non-band restricted cell” on line 3 ?

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 & 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 & 7, how is the relationship between “idle cells” on line 7 and “ accumulation of cell” on line 9 ?

Claims 3 and 9 have the same problem.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3 and 7 are rejected under 35 USC 102(e) as being anticipated by Quayle (Pat. 6317234 B1).

In claims 1 and 7, Quayle discloses a passive optical network comprising a plurality of users 5, each is coupled to an optical network unit 2 (subscriber unit including ONU); and a headend unit coupled to an optical line terminal 2 (a station including optical line terminal). See Fig.1, col.5, lines 60-67. A controller 14 in the ONU 2 determines future capacity requirements based upon a recent buffer fullness to transmit data to the optical line terminal (means for recognizing accumulation of cells in optical network unit based on result of monitoring increasing of cells). See col.3, lines 35-50. The controller 12 in the optical line terminal (OLT) defines upstreams capacity allocated to ONUs depending on different service types from low bit

rate to variable high bit rate (means for individually handling band process in optical network according to traffic types). See col.6, lines 60 to col.7, line 10 & col.2, lines 32-38.

In claim 3, the limitations of this claim has been addressed in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 8 and 9 are rejected under 35 USC 103(a) as being unpatentable over Quayle (Pat. 6317234 B1) in view of Srim (Pat. 5,463,620).

In claims 2 and 8, Quayle does not disclose rejecting packet which can not be processed. Srim discloses, in Fig.6, a call controller and bandwidth allocator 54, in response to receive bandwidth request from a caller, looks at the traffic table 58 and denies the calls if the required bandwidth is not available on the link (rejecting packet which can not be processed). See col. 8, line 60 to col.9, line 12. Therefore, it would have been obvious to one ordinary skill in the art to modify the OLT 2 of Quayle in order to reject the transmission of requested data from the ONU if the upstream capacity is not enough. In stead of doing that, the reamaining upstream capacity can be provided to another service type as suggested by Quayle.

In claim 9, the limitations of this claim has been addressed in claim 1.

Claims 4, 5, 10 and 11 are rejected under 35 USC 103(a) as being unpatentable over Quayle (Pat. 6317234 B1) in view of Graves (Pat. 6,519,255 B1).

In claims 4 and 10, Quayle does not disclose separating means for discriminating transmission permission for permitting individual process of traffic requiring band restriction and traffic not requiring band restriction. Graves discloses, in Fig.7, an optical network unit 1 comprising a demux 16 (a separating means). The demux 16 separates downstreams cells from optical line terminal into broadband cells (traffic not requiring band restriction) and narrowband cells streams (restricted band traffic). See col.9, lines 55-67. Therefore, it would have been obvious to one ordinary skill in the art to implement the demux into the optical network unit of Quayle to separate different traffic types and route to subscriber units.

In claims 5 and 11, Quayle discloses a fair capacity allocation to various requested traffics such as a priority allocation is provided to telephone service (weight function for estimating variation of traffic). See col.2, lines 10-20.

Claims 6 and 12 are rejected under 35 USC 103(a) as being unpatentable over Quayle (Pat. 6317234 B1).

In claims 6 and 12, Quayle does not disclose notifying subscriber unit stopping transmission for packet transmission. The Office Action is taken that sending a notification message to a source unit to stop transmission is well-known in the art. Therefore, it would have been obvious to one ordinary skill in the art for the OLT 2 in Quayle to transmit a stop transmission message to the ONU when its buffer 3 is full and the OLT 2 does not have enough upstream capacity to allocate to the ONU.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kasahara (Pat. 5,544,170) discloses ATM Transmission System with a Variable Transmission Rate.

Omori et al. (Pat. 6,658,023 B1) discloses Image Transmission System.

Pearson et al. (Pat. 5,191,583) discloses Method and Apparatus for Effecting Efficient Transmission of Data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8AM to 5PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Hanh Nguyen

A handwritten signature in black ink, appearing to read 'HNguyen', written over the printed name.

October 8, 2004